

**Directive Number and Title:**

DOE Order 232.1A, Occurrence Reporting and Processing of Operations Information, and associated Manual, DOE M 232.1-1A

**Originating Office:**

Office of Environment, Safety and Health

**Review Team Members:**

Anne Troy, GC  
John Evans, S3.1  
Frank Tooper, EH  
Jeannie Boyle, EH

**Background and Overview of Requirements:**

DOE Order 232.1A was originally issued in 1990 (as DOE Order 5000.3A) and last revised in 1997. DOE M 232.1-1A was originally issued in 1995 and last revised in 1997. The Order and Manual contains the requirements for the DOE Occurrence Reporting and Processing System (ORPS) and provides for: 1) timely identification, categorization, notification, and reporting to DOE management of reportable occurrences at DOE-owned and -leased facilities, 2) review of reportable occurrences to assess the significance, root causes, and generic implications, and the need for corrective actions, 3) timely evaluation and implementation of appropriate corrective actions, 4) dissemination of Occurrence Reports to DOE operations and facilities for lessons-learned, and 5) maintenance of a central DOE system for reporting, processing, retrieving and analyzing unclassified, nonsensitive site and facility operations information.

The Order contains broad requirements and programmatic responsibilities for establishing and maintaining an occurrence reporting program. The Manual contains very detailed requirements and responsibilities for categorizing occurrences, notifying DOE, and preparing and submitting occurrence reports.

The Order's initial focus was to ensure that DOE management was notified in a timely manner when significant 'off-normal' events occurred throughout the complex. The Manual was initially developed to describe reportable occurrences, threshold levels for event categorization, and detailed time limits for the reporting process. Over the years, additional reportable occurrences were added and reportable thresholds were revised. In addition, the ORPS database has been used to analyze the occurrence data for performance trending and sharing of lessons-learned throughout the DOE complex (e.g., equipment failures and fixes, procedure improvements, etc.) However, the occurrence reporting database has been criticized for not being user-friendly.

### **Analysis:**

The team reviewed all of the comments, and the following analysis is a composite of inputs received from: field elements and contractors directly, the draft Reyes Report, and the Executive Safety Conference. In addition, a conference call was held with Rocky Flats personnel on January 10<sup>th</sup> to discuss their concerns regarding requirements for reporting equipment failure at closure sites.

ORPS has been criticized by some DOE and contractor management personnel for being overly cumbersome, difficult to utilize, and not adding value. Excessive numbers of reports, low thresholds for reporting, and widely varying narrative event descriptions are among the chief complaints which, in turn, impede the usefulness of the system for safety management, trending, or identifying lessons-learned. Vague occurrence cause codes such as "inattention to detail" tend to result in the short-term resolution of symptoms rather than lasting improvements to safety management. Each event tends to be treated as an isolated occurrence even though the investigation of serious accidents over the last five years clearly indicates that an effective response to precursor events could have prevented these accidents. Accordingly, the ORPS should be remodeled within the framework of Integrated Safety Management (ISM). At a minimum, cause codes should reflect the core functions and principles of ISM. Such a remodeling is needed to provide maximum value to continuous improvement in safety management, the identification of adverse performance, and the sharing of lessons-learned. This will enable the identification, trending, and proactive resolution of systemic deficiencies in ISM that contribute to occurrences or adverse trends. Individuals investigating events against ISM will have an increased understanding of the policy and focus more on long-term improvements than symptoms.

### **Recommendations:**

Revise Order 232.1A to simply delineate ORPS performance objectives/outcomes at all DOE-owned and -leased facilities. At a minimum, outcomes should include: a) ORPS shall provide maximum value to continuous improvement in safety management, the identification of adverse performance, and the sharing of lessons-learned; and b) ORPS shall provide timely notification to DOE of significant 'off-normal' operating occurrences.

**Note:** The categorization and threshold for reporting occurrences should recognize the differences in operations among production sites, science labs, and closure sites.

Convene a Working Group consisting of line management (HQ's, Field Offices, and contractors) and EH to remodel the ORPS to meet the challenges described in the Analysis above. Changes to the ORPS Manual should follow within 6 months. The Working Group should give early consideration to immediate, short term fixes as well as a long term overhaul of the system. It should identify the target audiences/users of ORPS

as well as reassess whether currently requested reporting information provides value to DOE. Furthermore, the remodeling effort should eliminate security reporting requirements, and re-assess/improve transportation, and radioactive contamination and exposure requirements in response to comments provided by the field.

The Working Group should also consider ways to: a) use off-the-shelf software to benefit changes to the central system; b) create user-friendly screens to promote usage; c) incorporate push technology to offer immediate information to management; and d) ease reporting and approval functions to reduce costs.

The Working Group should explore opportunities to integrate ORPS with other DOE reporting systems (e.g., CAIRS, REMS) for efficiency and cost savings purposes.

**Minority Views:**

None

**Originating Office Comments:**

None

Attached is a compilation of all comments received from the field and contractors.

**COMMENTS ON DOE ORDER 232.1A AND DOE MANUAL 232.1-1A IN RESPONSE TO  
PERFORMANCE BASED CONTRACTS: ORDER REVIEW**

#	FO	DOE/Contractor	Comment
1	ALO	DOE	<i>No reference</i>
2	CH	ANL	Discard and simplify to focus only on the most serious events. Combine and coordinate with 225.1A to ensure consistency. Require tracking for lower-level events and near misses at the Contractor, but don't require formal reporting to DOE.
3	CH	BSA	<i>Manual listed but nothing in comment field.</i>
4	CH	DOE	(not on list) O 232.1A Occurrence Reporting & Processing of Operations Information - 7/21/1997 - Retain. M 232.1-1A Occurrence Reporting & Processing of Operations Information - 7/21/97 - Retain.
5	EFCOG		Listed as Priority = High, Unnecessary, Duplicative, Inconsistent While there is a need to have consistent reporting of abnormal occurrences for the complex, the specific reporting criteria and the method of reporting is not cost effective. There should be a graded approach where a minor event does not require the same level of evaluation that a major event does. The criteria also needs a major overhaul, too many minor events have to be reported. It would also be appropriate to review some of the assumptions, i.e. a) about 20% of the reports for the complex are reported as 'Mgmt. Concern, below other reporting criteria,' b) most reviews of this system have indicated significantly different reporting thresholds from site to site, c) the ORPS system does not address or track many of ISMS functions. Duplicates security order requirements as well as legal reporting requirements for environmental laws. Duplicative of the NTS related to Price Anderson requirements;
6	ID	DOE	<i>No reference</i>
7	ID	BBWI	DOE Order 232.1A and DOE M 232.1-1A, "Occurrence Reporting" This comment is under the category of an outdated process approach. For several years now a new approach has been discussed between the Occurrence Reporting Special Interest Group and DOE Headquarters contact for this order and manual and affected Secretarial offices. This new approach is called Short Form reporting, which would allow the contractors for certain reports of a lesser significance to report simply for informational purposes without the attendant cause analysis and corrective action plan development. This would greatly reduce the burden on the contractors for events where little or no benefit is realized through the more rigorous approach. While this approach has been generally accepted as viable and acceptable to all parties, it has not been brought to fruition for several years. Primary reasons provided have been: (1) lack of resources; and (2) initiative on the part of the Order/Manual owners due to changes in Secretarial Office responsibility for the Occurrence Reporting Program. Recommend that this initiative be revisited as part of this review and expanded to include all Off-Normal occurrence reporting criteria presently found in DOE Manual 232.1-1A.
8	NV		<i>No reference.</i>

#	FO	DOE/Contractor	Comment
9	OAK	LLNL	See Note 1. - Note 1. Review process and period does not allow adequate time to conduct comprehensive review on ES&H directives.
10	OAK	LLNL and/or DOE?	While this manual is prescriptive, consistency between sites and contractors is necessary for this automated system to ensure that the data entered will allow for accurate analysis on a Department wide basis.
11	OII		<i>No reference.</i>
12	ORO	?	M 232.1-1A This manual is quite prescriptive; however, without such prescription, the data derived from the reporting of occurrences would not be conducive to statistical analysis (e.g., trending), and a valid measure of contractor performance would be lost.
13	RFO	KHLL & DOE	<ol style="list-style-type: none"> <li>1. *Introduce Short Form reporting (no impact statements, no cause analysis, no corrective actions, etc.) to eliminate extensive reporting on events where the impact is minimal and immediate actions are sufficient for the events.</li> <li>2. *Pop-Up menu in ORPS for Nature of Occurrence to assist in trending.</li> <li>3. *Eliminate Nature of Occurrence Group 5 in accordance with DOE N 471.3.</li> <li>4. Propose the elimination of Nature of Occurrence 1 D ON 6. The criterion is redundant to 1 D ON 5 and is of a lower threshold.</li> <li>5. Propose the elimination of Nature of Occurrence 4 B ON 2. The criterion is redundant to 4 B ON 1 and is of a lower threshold. [DOE RFO Neutral. This will reduce the number of reportable occurrences. The basis for the distinction in reporting level is unknown.]</li> <li>6. Pursue the elimination of the criteria to report potential USQs. This would mean rewording 1C ON 1. It makes sense to report actual USQs, but why report potentials? When a screen is performed to determine USQ applicability, it doesn't always come back positive. If the screen is negative, no actions are necessary, thus no value in reporting.</li> <li>7. Modify the wording of Nature of Occurrence Group 7 B to require reporting only if the Suspect/Counterfeit Item is already installed. If the item is identified upon receipt inspection and disallowed, it would not be reportable. (Good candidate for short form above) [DOE RFO Disagrees. The need to understand why and know the number of counterfeit events is as important as those found in use. If vendors are attempting to supply counterfeit / suspect products then this needs to be documented.]</li> <li>8. Propose a revision to the criteria of Group 1.C. ("Any violation or noncompliance of an approved Technical Safety Requirement Technical Specification or Operational Safety Requirement) or other operational safety limit defined by the contractor/DOE.") to enable categorizing Violations or non-compliance issues as Off-Normal if they involve administrative controls. Leave the Unusual category for LCO issues. Our contract requires a grading system be used for AB violations. Grades were established that separate Limiting Conditions for Operation (LCO) issues and Administrative Control (AC) issues.</li> <li>9. Grant the ability to retract or edit ORPS reports in Pre-Final status.</li> <li>10. Create a new field in ORPS for ISM coding.</li> <li>11. Eliminate Field 29 [Impact on Codes and Standards] in ORPS for lack of use.</li> <li>12. Eliminate Nature of Occurrence Group 1 E, Safety Structure/System/Component Degradation for D&amp;D sites.</li> <li>13. Add a definition for "Near Miss" such as, <i>A narrowly avoided condition that has the high potential for life threatening or very serious injury or serious harm to the environment.</i></li> </ol>
14	RL		<i>No reference</i>

#	FO	DOE/Contractor	Comment
15	RP		No reference
16	SPR		<p>Order Title Retain Unnecessary Duplicative Outdated Overly prescriptive</p> <p>232.1-1A Occurrence Reporting &amp; Processing of Operations Information XX</p>
17	SR	DOE & Westinghouse	<p><b>232.1A - Occurrence Reporting and Processing of Operations Information</b></p> <p>There are several elements of this Order that should be changed.</p> <p><b>DOE Approval of Contractor Implementing Procedures for ORPS</b></p> <p>DOE review and approval of contractor procedures that implement DOE Order 232.1A and DOE Manual 232.1-1A should not be required. To approve the contractor's detailed implementing procedures would be approving the "how." The DOE role should be reserved for approval of higher-level documents such as the Safety Analysis Reports. The U. S. Nuclear Regulatory Commission does not approve licensee procedures. To remove this requirement, the following sections require change:</p> <p>DOE Order 232.1A:</p> <ul style="list-style-type: none"> <li>- Under item 4.b, delete subsections (1), (2) and (3)</li> </ul> <p>Under item 5.b, delete second phrase, which reads "review and approve the Facility/Site Implementation Procedures"</p> <p>Attachment 1, Contractor Requirements Document, delete entire second paragraph</p> <p>DOE Manual 232.1-1A:</p> <ul style="list-style-type: none"> <li>- Under item 4.2, delete item b, "Review and provide comments on/approve the Facility/Site Implementation Procedure after....."</li> </ul> <p>Page 14, item 8, delete second through fourth sentences.</p> <p><u>Justification/Basis for Eliminating Requirement, including benefits to be realized:</u></p> <p>The occurrence reporting implementing procedures of Savannah River Site (SRS) contractors are reviewed and revised based upon DOE-SR input made as part of an ongoing oversight process, which includes Operational Assessments, Technical Assessments, and Award Fee reviews. In addition, DOE-SR Facility Representatives are afforded the opportunity to comment on all changes to occurrence reporting implementing procedures of SRS contractors.</p> <p>Local interpretations and requirements (including deletions) are invoked via DOE-SR approved Site Standards/Requirements Identification Document (S/RID) change(s) or via SR letter directive at the Assistant Manager level or higher. This is to prevent the combination of the actual DOE directive text and any related "site discussion" which may appear in a contractor's occurrence reporting implementing procedures from significantly altering the intent of the DOE directive.</p>

#	FO	DOE/Contractor	Comment
			<p><b>Property Management Reporting Requirements in ORPS/Security Incident Reporting System</b></p> <p>Portions of the following requirements duplicate property management reporting requirements and need to be eliminated (this is also true when these requirements are moved to Notice DOE N 471.3, Reporting Incidents of Security Concern).</p> <p>Manual DOE M 232.1-1A, page 31, Group 5.AUO(3) Manual DOE M 232.1-1A, page 31, Group 5.AON(2)</p> <p>Only the portion of the requirement, which concerns reporting the theft/diversion of Government property, is being exempted. The portion of the requirement to report intentional destruction of Government property valued greater than \$1,000,000 (requiring an Unusual Occurrence report) and valued between \$10,000 and \$1,000,000 (requiring an Off-Normal report), should be retained.</p> <p><u>Justification/Basis for Eliminating Requirements from 1 &amp; 2 above, including benefits to be realized:</u> DOE-SR has a current, approved exemption in place for this item. Justification for this request was:</p> <p>DOE-SR is required by the Code of Federal Regulations Title 41, Subtitle C, Federal Property Management Regulations System, as well as Federal Acquisition Regulations and local procedures, to develop a system to track, control, and minimize the loss of government assets. DOE-SR is also required to report to Headquarters on an annual basis through the Business Management Oversight Process (Balance Sheet) the percent of equipment inventoried and identified for each annual inventory cycle. Our percent of findings for each of the last five years has been in the 99%+ range. DOE-SR has a well-established program to control the loss of assets. DOE-SR contractors have implemented DOE-approved property management systems to carry out the above requirements. Reporting this information in the Occurrence Reporting and Processing System database is a duplication of effort with no value added. DOE-SR will continue to report all theft/diversion aspects to the Savannah River Site 911-call center for inclusion in the daily log, which is provided to DOE Headquarters. Local data will continue to be reported to DOE Headquarters on an as-requested basis.</p> <p><b>Personnel Radiological Protection Reporting Requirements in ORPS</b></p> <p>The following requirements are burdensome and need to be modified to better utilize the integrated approach to worker safety and to improve cost-effectiveness.</p> <p>Manual DOE M 232.1-1A, page 30, Group 4.B ON (1) Manual DOE M 232.1-1A, page 30, Group 4.B ON (2)</p> <p>The proposed action is to raise the criteria for formal reporting of personnel contamination events to a level commensurate with the consequences of the event and consistent with commercial nuclear industry guidelines developed and published by the Electric Power Research Institute (EPRI). In <i>Guidelines for Industry Response to Personnel Contaminants</i>, TR-113039, EPRI, 12/99, actions taken in response to such events are part of a three-tiered approach based on potential dose to the workers involved. Only events involving exposure to contamination levels capable of providing a dose in excess of one percent (1%) of the allowable annual skin dose are formally reported. Lesser detectable levels are documented and trended with appropriate corrective actions taken.</p>

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			<p>Due to the nature of commercial nuclear power, the scope of concern in the EPRI document is limited to beta-gamma emitting contaminants. Since DOE activities frequently involve potential exposure to alpha emitting contaminants that are not capable of producing measurable dose to the skin, a method must be employed to establish action levels for events involving such emitters. An action level for alpha contamination established at 10 % of the beta-gamma level is suggested. The factor of 10 is established in release criteria given in NSI N13.12-1999, <i>Surface and Volume Radioactivity Standards for Clearance</i>, which considers a variety of dose pathways. Comparing the total alpha and beta-gamma contamination limits in Table 2-2 of the DOE Radiological Control Standard can derive the same ratio.</p> <p>It is proposed the existing 4BON1 reporting criteria from DOE Manual 232.1-1A be replaced by the following modified criteria and the existing 4BON2 reporting category be eliminated.</p> <p>Group 4 - <u>Personnel Radiological Protection</u></p> <p>- <u>Personnel Contamination</u></p> <p><u>TT-Normal</u></p> <p>) Any measurement of personnel or clothing contamination (excluding protective clothing) at a level &gt;50,000 net counts per minute (ncpm) Beta-Gamma or &gt;25,000 ncpm Alpha. The contamination level shall be based on direct measurement and not averaged over any area.</p> <p>Note: Due to the inability to directly survey personnel for tritium, limits are not appropriate. Significant contamination of personnel should normally be reportable via ORPS based upon the initiating event or subsequent whole body dose assessment.</p> <p><u>Rationale/Basis for Modifying Requirement, including benefits to be realized:</u></p> <p>The current requirements for reporting of events involving contamination of personnel with radioactive material are excessive and frequently result in the expenditure of resources well beyond the benefit derived from the requisite actions. For the majority of personnel contamination cases, there is minimal dose consequence or health risk associated with the event. However, because the issue is required to be formally reported, including determination of root cause, considerable effort is expended. Additionally, investigations into a significant portion of the lesser events fail to produce meaningful results as to likely cause and means of prevention. This is not to suggest the investigations are largely ineffective but rather demonstrates the frequency investigators must attempt to track miniscule levels of contamination in antiquated facilities. The current reporting level places an emphasis on elimination of contamination events without regard to their significance and produces numerous negative consequences resulting from attempting to prevent generally minor events at high costs.</p> <p>By allowing operating contractors to replace the current incident reporting requirements with a tiered reporting system, such as shown in Table 1*, minor contamination cases would not be formally reported. Management would be able to implement changes to make radiological work more cost-effective and safer from an integrated safety perspective.</p> <p>NOTE: It is not suggested that Table 1 be included in the Manual. It is only provided to indicate what actions a facility may employ</p>



#	FO	DOE/Contractor	Comment
			<p>as part of a tiered reporting system. [Table 1 is listed at the end of this document.]</p> <p><b>Personnel Radiological Protection Reporting Requirements in ORPS</b></p> <p>The following requirement is burdensome and needs to be modified to avoid the extensive and inappropriate attention on the affected worker and undue extent of investigations inconsistent with the associated risk.</p> <p>Manual DOE M 232.1-1A, page 29, Group 4.A ON (1)</p> <p>The proposed action is to modify the criteria to reduce the formal reporting of doses received by personnel from exposure to internally deposited radioactive materials that only contribute currently reportable levels of dose over the lifetime of the employee.</p> <p>It is proposed the existing 4AON1 reporting criteria from DOE Manual 232.1-1A be replaced by the following modified criteria.</p> <p><u>Group 4 - Personnel Radiological Protection</u></p> <p><u>- Radiation Exposure</u></p> <p><u>T-Normal</u></p> <p>Any single occupational exposure from external sources of radiation that exceeds an expected exposure by 100 mrem, or from internal sources of radiation that produce an exposure of 100 mrem in the first year after intake, or from internal sources of radiation that produce an exposure of 500 mrem CEDE, or due to the same event, the sum of the fractions of the limits listed above exceed unity.</p> <p><u>Rationale/Basis for Modifying Requirement, including benefits to be realized:</u></p> <p>The current requirements for reporting of events involving unexpected exposures greater than 100 mrem include the exposures from internally deposited radionuclides. Estimates of total dose from such exposures are estimated over the 50-year period following the intake. The biological impact of dose delivered over such an extended period is believed to be significantly less than dose delivered during a single exposure (i.e., 100 mrem CEDE vs. 100 mrem in a single exposure). Thus, equating the significance of the reportability of two events seems inappropriate.</p> <p>Limiting the reporting of events that involve exposure to internally deposited radionuclides that produce 100 mrem during the first year after the event would more nearly equate to the biological significance of the current reporting requirement. Additionally, placing an upper limit of reporting any event that produces a CEDE of greater than 500 mrem would capture those events that produce exposures exceeding a reasonable fraction of the DOE annual occupational exposure limit on total effective dose equivalent, namely 10% of the 5 Rem limit.</p> <p><b>Personnel Radiological Protection Reporting Requirements in ORPS</b></p> <p>The following requirements refer to an obsolete reference and needs to be modified.</p>

#	FO	DOE/Contractor	Comment
			<p>Manual DOE M 232.1-1A, page 29, Group 1.D UO (2)  Manual DOE M 232.1-1A, page 29, Group 4.D ON (5)  Manual DOE M 232.1-1A, page 29, Group 4.D ON (6)</p> <p>The proposed action is to replace an obsolete reference with the correct source, namely 10CFR835, Appendix E, <i>Values for Establishing Sealed Radioactive Source Accountability and Radioactive Material Posting and Labeling Requirements</i>.</p> <p>It is proposed the existing 1DUO2, 1DON5 and 1DON6 reporting criteria from DOE Manual 232.1-1A be replaced by the following modified criteria.</p> <p>Group 1 - <u>Personnel Radiological Protection</u></p> <p>- <u>Loss of Control of Radioactive Material/Spread of Radioactive Contamination</u></p> <p><u>Unusual Occurrence</u>  1) Loss of accountability of a sealed source or identification of lost radioactive material that exceeds 100 times the quantities specified in 10CFR835, Appendix E.</p> <p><u>10X-Normal</u>  1) Loss of accountability of a sealed source or identification of lost radioactive material that exceeds 10 times and is less than 100 times the quantities specified in 10CFR835, Appendix E.  2) Loss of accountability of a sealed source or identification of lost radioactive material that is one to ten times the quantities specified in 10CFR835, Appendix E.</p> <p><u>Rational / Basis for Modifying Requirements 3 thru 5 above, including benefits to be realized:</u>  The current requirements for reporting of events involving the loss of accountability of a sealed source or identification of lost radioactive material make reference to a list of quantities of various radionuclides ranked by their varying levels of hazard and found in DOE N 441.1, <i>Radiological Protection for DOE Activities</i>. The original document has long since expired and been extended several times by subsequent notices. However, with the recent revision of 10CFR835, the list of radionuclides was removed from the content of the then current notice and placed in 10CFR835 as Appendix E. At that time, the values in the list were revised and now represent substantially different values than those presented in the prior notices. Changing the reference in DOE M232.1-1A will reference the correct source and current values.</p>
18	SR	DOE & Westinghouse	<p>232.1 1A - Occurrence Reporting &amp; Processing of Operations Information</p> <p>The DOE Occurrence Report and Processing Requirements (DOE Order 232.1A) related to personnel contamination cases require the contractor to report any skin or clothing contamination case that exceeds the surface contamination values given in Table 2-2 of the DOE Radiological Standard. For the majority of personnel contamination cases there is minimal dose consequence or health risk associated with the event. However, because the issue is required to be formally reported, contamination cases are closely monitored and extensive efforts</p>

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			<p>expended to avoid additional contamination cases.</p> <p>DOE Occurrence Report and Processing Requirements (DOE Order 232.1A) require WSRC to report any unplanned individual dose of 100 mrem or more. For external exposures, dose equivalents as measured by dosimeters would be the reported quantities. The existing requirement represents no undue problem for external doses. Job planning and ALARA reviews adequately negate the likelihood of a reportable dose, and an occurrence would represent a significant breakdown in these preventive program aspects that should be thoroughly evaluated and reported. However, at the beginning of 1993, the official internal dose was changed from Annual Effective Dose Equivalent (AEDE) to Committed Effective Dose Equivalent (CEDE), all assigned to the year of intake. That definition of internal dose, coupled with the current requirement to report internal doses of 100 mrem or more has resulted in an inappropriately low intake investigation level with undue negative consequences.</p> <p>Some intake dose evaluations for alpha emitting radionuclides like plutonium and other actinides are necessarily based on data at or barely above the detection decision level for routine laboratory analytical capabilities. When combined with the 100 mrem CEDE reporting requirement there is potential for reporting a dose that may not have occurred based on false positive analyses. Further, once an intake is identified at reportable levels without a known causative radiological incident, it results in substantial effort and attention on the part of the radiation protection program and the affected operation to identify an activity that was the likely cause. Individuals receiving the dose are subjected to an inordinate amount of attention during internal and/or external investigative efforts, are made inappropriately anxious, and often become over-concerned. It is important to note that at SRS there are no planned intakes of alpha emitting radionuclides and all indications of internal dose are evaluated, recorded and duly reported to the worker down to 10 mrem CEDE. However, those above 100 mrem CEDE result in SIRIM reporting which can lead to a high degree of management and oversight attention that exceeds what is justified by scientific health and safety or operational bases.</p> <p>These negative consequences occur at a dose that has little or no health consequence. Similar attention does not occur for planned external doses that exceed 100 mrem in a single activity. An internal dose of 100 mrem CEDE delivers a dose of less than 5 mrem in the first year. Such doses are below the detection level for external dosimeters and would not be measured or reported. These impacts result in additional and unwarranted costs, and may result in anxiety that could have greater deleterious health impacts than the dose received. Finally, reporting at 100 mrem for individual intakes is inconsistent with other regulations in the U. S. For instance, NRC licensees are not required to report unexpected individual doses below the federal limit of 5000 mrem in a year. In fact, the NRC does not require internal dose monitoring for internal dose for workers not likely to exceed 500 mrem CEDE.</p> <p>The intent of this change is not to avoid investigation of small doses from intakes; all intakes will continue to be investigated for cause and prevention of recurrence. Rather, the intent is to avoid the extensive and inappropriate attention on the affected worker and undue extent of investigations inconsistent with the associated risk.</p>
19	SR	DOE William Murphy, FR	<p>issenting View</p> <p>ight off the bat, allow me to assure you (and whoever else) that I am not implying duplicity on anyone's part.</p> <p>section I of your proposed changes it would appear that it is proposed to give the keys to the institution to the inmates or allowing the overbial fox free access to the chicken coop. How can we as the oversight entity allow the contractor to tell us how they intend to</p>

#	FO	DOE/Contractor	Comment
			<p>plement our requirement without our approval of the "how"? Some of us are not blessed with the higher tier "motherhood" documentation of a SAR and must rely upon approval of implementing documentation. I would also point out that this is not the NRC, it is DOE and if a model of performance is to be used, there are better models out there for use.</p> <p>When I first arrived at this site in 1990, the major aim was to change the "DuPont" mentality/culture of reporting what they (WestingPont) thought we needed to know, to one of total disclosure to the Department. Now it would appear we intend to go back to the culture we worked so hard to do away with. "Trust but verify" seems a much more reasonable policy. If you were building a house wouldn't you first view and verify the plans or would you simply allow the contractor to build what he thought you wanted?</p> <p>Regarding the FRs the ability to "comment" buys us virtually nothing. I can comment all day long, but if there is nothing in place to put weight behind the comments, I am simply wasting my time and effort. This is evidenced by the review of the 8Q procedure 32 revision of a couple of years ago. The FR council submitted several comments which were given lip service only. So much for the power of commenting.</p> <p>Section 1 is completely unacceptable, as is any plan to allow the contractor to (on an unapproved basis) tell us how they intend to fulfill our directives.</p> <p>Section 2 seems reasonable/acceptable in that theft/diversion is handled by WSI under their own investigative procedures and RIM/ORPS reporting would be a duplication of effort.</p> <p>The remaining sections will fall under the purview of our "Nuclear" brethren and I will default to their judgement on these issues.</p> <p>In, I cannot state strongly enough that we cannot default to the way things used to be. Progress is being made because we, the Department, are taking a proactive role in determining the "hows".</p>
20	Yucca	DOE	<p>The remaining Directives, Orders, etc. were reviewed and no comments are provided.</p> <p>DOE Manual M 232.1 - 1A - Occurrence Reporting &amp; Processing of Operations Information (Note that this manual has no CRD)</p>

\*TABLE I

Action Level Response	<sup>(1)(2)</sup> Contamination Level (ncpm)		Facility Response
	$\beta$ - $\gamma$	$\alpha$	
<b>No Action</b>	<100 <sup>(3)</sup>	<50 <sup>(4)</sup>	None
<b>I</b>	From $\geq 100$ ncpm To 5,000 ncpm <sup>(3)</sup>	From $\geq 50$ ncpm To 2,500 ncpm	Decon individual and log basic occurrence information. Evaluate the need for a special bioassay program. Review for cause and trends at least quarterly.
<b>II</b>	From $> 5,000$ ncpm To 50,000 ncpm	From $> 2,500$ ncpm To 25,000 ncpm	Level I plus information about the incident is recorded in detail and compiled for management evaluation and also reviewed for corrective actions (i.e., Problem Identification Report initiation).
<b>III</b>	$> 50,000$ ncpm	$> 25,000$ ncpm	Levels I & II plus reporting of the incident in ORPS and performance of a skin dose assessment for $\beta$ - $\gamma$ contaminants.

<sup>(1)</sup>Assume a counting efficiency of 10% (0.1 cpm/dpm) for  $\beta$ - $\gamma$  and 50% (0.5cpm/dpm) for  $\alpha$ . To obtain the ratio of 10 between alpha and beta-gamma action levels it is necessary to apply the detection efficiency.

<sup>(2)</sup>Due to the inability to directly survey personnel for tritium, limits are not appropriate. Significant tritium contamination of personnel would normally be reportable via ORPS based on the initiating event or subsequent dose assessment.

<sup>(3)</sup>Based on the Lower Limit of Detection (LLD) for typical portable beta-gamma survey instruments of 100 cpm above background.

2/8/2002

(4) Based on the LLD for typical portable alpha survey instruments of 50 cpm above background.

(5)  $n_{cpm}$  = net counts per minute: the count rate of a source of radioactivity; the total counts less the background.